ABSTRACT

An adaptive, sensorless position sensing apparatus (250) derives rotor position of a synchronous machine (200). The apparatus (250) comprises a first rotor position deriving unit (300) for generating first rotor position values by applying a first sensorless rotor position calculation technique, which emulates a resolver; a second rotor position deriving unit (400) for generating second rotor position values by applying a second sensorless rotor position calculation technique; and a rotor position result output unit (450) for outputting rotor position results over a range of rotor speeds as a function of the first rotor position values, the second rotor position values, and rotor speed.